

**ABSTRACT**

Device and method for controlling the perceived distances of sound sources by manipulating vocal effort and presentation level of a synthetic voice. Key components are a means of producing speech signals at different levels of vocal effort, a processor capable of selecting the appropriate level of vocal effort to produce a speech signal, and a carefully calibrated audio system capable of accurately matching the RMS power of the signals reaching the listener's left and right eardrums to the power that would occur for a sound source 1 m directly in front of the listener in an anechoic environment.